Reticular Rash on the Chest

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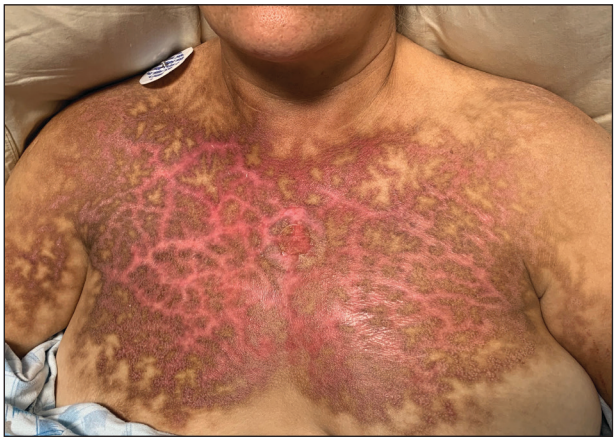

A 53-year-old woman with a history of diabetes mellitus, hypertension, chronic complex regional pain syndrome type 1, and chronic prescription opiate use presented to the hospital with a pruritic rash on the chest of 15 years' duration that started a few weeks after a left shoulder repair. The patient was using fentanyl patches and acetaminophen with oxycodone as well as a heating pad for 20 to 22 hours per day for many years to help with her chronic pain. She also described similar lesions on the abdomen and back when she used the heating pad on those areas for weeks at a time.

Vital signs were within normal limits. Physical examination revealed a lacy, reticular, eroded, well-demarcated rash on the chest along with areas of cracking. Laboratory evaluation did not reveal any abnormalities.

WHAT'S YOUR **DIAGNOSIS?**

a. cutis marmorata
b. cutis marmorata telangiectatica congenita
c. erythema ab igne
d. livedo racemosa
e. livedo reticularis

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THE **DIAGNOSIS:** Erythema Ab Igne

Based on the clinical findings and history, a diagnosis of erythema ab igne (EAI), a skin reaction to chronic infrared radiation exposure, was made. The name of this condition translates from Latin as "redness from fire"; other names include toasted skin syndrome and fire stains. The most common presentation is reticulated hyperpigmentation, erythema, and cutaneous atrophy, as well as possible crusting, scaling, or telangiectasia. The rash also typically presents in areas of heat exposure—from heated blankets, heating pads, or the use of infrared heaters or lamps.[1,2] The patient usually will have pain and pruritus over the affected areas. The diagnosis of EAI largely is clinical and based on the patient's history of exposure; it rarely requires biopsy and histologic analysis. However, some of the common histopathologic findings include hyperkeratosis, a hyperpigmented basal layer, hemosiderin deposits, prominent melanophages, basal cell degeneration, course collagen, and elastosis.[2,3] These changes are common with UV radiation exposure and thermal damage. The primary treatment in all cases is to remove or reduce the source of infrared radiation. However, EAI has been reported to be successfully treated with removal of the insult as well as topical agents such as imiquimod and 5-fluorouracil.[4] Possible complications include increased risk for malignancies such as squamous cell carcinoma in the affected area.[1]

The possible differential for EAI includes livedo reticularis, livedo racemosa, cutis marmorata, and cutis marmorata telangiectatica congenita. All of these conditions are related to dysfunction of the cutaneous vasculature that creates a reticular, mottled, reddish purple rash. When the livedo is reversible and idiopathic, it is referred to as livedo reticularis, but when it is generalized and permanent, it is referred to as livedo racemosa. Livedo racemosa can be caused by a variety of conditions, including systemic lupus erythematosus and antiphospholipid syndrome.[1] Physiologic livedo reticularis that is more transient and can be reversed by warming is referred to as cutis marmorata. Finally, cutis marmorata telangiectatica congenita primarily is found in neonates, and although persistent, it usually improves with age. Erythema ab igne also is a type of livedo with a known heat exposure and localized distribution.

Our patient was educated on the etiology of the rash, specifically related to heating pad usage for multiple years, and the risk for cutaneous malignancy after long-standing EAI. It was recommended that she discontinue use of a heating pad on the affected areas to allow them to properly heal. If she found that heating pad usage was necessary, she was advised to limit use to 5 to 10 minutes with 2 to 3 hours in between applications. In addition, she was advised to apply petroleum jelly daily for assistance with wound healing as well as anti-itch sensitive lotion twice daily on the arms and back to alleviate some of the tingling pain. We explained that areas of hyperpigmentation may improve with time; however, areas of erythema/atrophy may be long-lasting.

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